

REMARKS

The Office Action of May 19, 2003 presents the examination of claims 1, 4-6, 9-13, 16-18, 21, 23-28 and 30-41. Claims 39 and 40 have been canceled and rewritten as claims 42-46.

Claim objections

Claims 6, 9, 10, 26 and 37-40 stand objected to as being dependent claims that fail to further limit the claim from which they depend. The Examiner indicates the independent claims recite "closed" language in that the length of the nucleic acid is limited to 120 nucleotides, while the dependent claims are not so limited due to the recitation of the transitional term, "comprising".

Applicant does not agree. The particular isolated nucleic acid is described as "isolated", in claim 1. In claim 6, that isolated nucleic acid is further limited by being combined with a vector nucleic acid and a structural gene in a particular arrangement to the nucleic acid. In claim 26, the vector of claim 6 is further limited by being combined into a plant. Claims 9 and 10 clearly further limit the vector of claim 6 by specifying the nucleotide sequence of the isolated nucleic acid (claim 9) or by further specifying the arrangement of the nucleic acids as including insertion into an intron (claim 10).

In claim 37, the nucleic acid as described in claim 33 is being further limited by being combined in a vector with a structural gene in a particular arrangement to the nucleic acid of claim 33. Claim 39 further limits claims 37 and 38 by describing the vector in combination with a plant. Claim 40 further limits the nucleic acid of claim 33, 34 or 35 by combining it into a plant in an intron location. In all instances, the "nucleic acid" element first described in claim 1 remains described as being 120 nucleotides in length.

Notwithstanding Applicant's disagreement, the rejected claims, except claims 9 and 10, are amended to independent form to advance prosecution of the present application.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 1, 4-6, 9-13, 16-18, 21, 23-28 and 30-41 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

The Examiner takes a position that it is not clear from the language of the claims whether it is the 120 nucleotide sequence as a whole, or only the portion that is encompassed by SEQ ID NO: 1 that hybridizes to SEQ ID NO: 3. Applicant submits that the claim language clearly states that it is the "nucleic acid" that hybridizes to SEQ ID NO: 3 and furthermore that the

"nucleic acid" is defined in the claims as one that is no more than 120 nucleotides in length and comprises the 64 nucleotide sequence of SEQ ID NO: 1. Thus, it is clearly the 120 nucleotide nucleic acid that hybridizes to SEQ ID NO: 3.

The Examiner further asserts that claims 13 and 41 fail to recite a positive process step that refers back to the preamble of the claim. Claims 13 and 41 have been amended to recite such a step, thereby obviating this ground of rejection.

Claims 33 and 41 and claims dependent thereon are deemed unclear for reciting 70% (or higher) identity to SEQ ID NO: 3. The Examiner indicates that he does not understand whether the identity is between the 120 nucleotides or only the portion represented by SEQ ID NO: 1. Given that SEQ ID NO:1 is 100% identical to a portion of SEQ ID NO: 3 (compare in the Sequence Listing), Applicant submits that this grounds of rejection is baseless. Applicant submits that it is clear that the degree of identity is between the entire 120 nucleotide sequence and SEQ ID NO: 3. Claims 33 and 41 have been amended above to recite, "comprising a polynucleotide consisting of nucleotides 2-65 of SEQ ID NO: 3 and further comprising a second polynucleotide at the 3' end having a sequence that is 70% identical to nucleotides 66-173 of SEQ ID NO: 3." Applicant submits that this language very clearly expresses the intended claim scope.

Claim 36 is rejected because the Examiner believes that the language, "a plurality of polynucleotides having the sequence of SEQ ID NO:1" is unclear because the term "having" is not a legally defined transitional phrase. Applicant notes that § 2111.03 of the Manual of Patent Examining Procedure indicates that the term "having" should be interpreted in light of the specification to determine whether it is intended to be open or closed. Applicant submits that reading the specification makes clear that the term "having" when applied to a polynucleotide "having" a sequence, is intended to define a sequence and so is closed language in such instance. Consistent with this, Applicant has previously argued that the term "having" when used to define an element is closed language, as opposed to when "having" is a transitional term, in which case it is open language. Applicant submits that the record therefore makes this intent of the drafter clear. Thus, in claim 36, the claimed nucleic acid is described as more than one polynucleotide, each represented by SEQ ID NO: 1, and perhaps additional polynucleotides not limited to being represented by SEQ ID NO: 1.

For all of the above reasons, the rejection of claims 1, 4-6, 9-13, 16-18, 21, 23-28 and 30-41 under 35 U.S.C. § 112, second paragraph should be withdrawn.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 33-41 stand rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of adequate written description of the invention. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

The Examiner takes a position that the claims "reads [sic] from the perspective of SEQ ID NO: 1", the claim language seems to suggest that up to 30% of the residues of SEQ ID NO: 1 can be changed without disrupting promoter function, despite contrary indications in the data. The Examiner again notes that the claim language is indefinite and that clarification of the claim language may help overcome this rejection.

Applicant submits that the language of amended claim 33 provides such clarification of the claim language. Accordingly, the claims 33-41 recite that portion of the promoter described in the specification, e.g. in Table 1, as conferring promoter activity. Accordingly, the instant rejection should be withdrawn.

Rejections over prior art

Claims 6, 9, 10 and 37 are newly rejected under 35 U.S.C. § 102(b) over Morioka '016. The Examiner takes a position that the nucleic acids disclosed therein are identical to those

presently claimed. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

Applicant notes that the 173 nucleotide sequence of SEQ ID NO: 3 is disclosed in the reference. However, Applicant also notes that there is no disclosure in the cited patents that directs the artisan to the shortened 120 nucleotide sequence comprising the specific nucleotides of SEQ ID NO: 1. Accordingly, the presently (or previously) claimed invention is distinct from what is disclosed in Morioka '016. Accordingly, the rejection is not appropriate and should be withdrawn.

The Examiner also rejects claims 6, 9, 10 and 36-38 under 35 U.S.C. § 102(e) as lacking novelty over Ueki '578. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

The Examiner explains that the rejection is grounded on the failure of these claims to further limit that independent claims from which they depend. As Applicant has explained above, this interpretation of the claims is not appropriate and in any event the claims have been explicitly rewritten into independent form. Therefore, the rejection should therefore be withdrawn.

Claims 6, 9 and 10 stand rejected under the judicially created doctrine of obviousness-type double patenting. Applicant provides with this response a Terminal Disclaimer sufficient to overcome this rejection.

The present application well-describes and claims patentable subject matter. The favorable action of allowance of the pending claims and passage of the application to issue is respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mark J. Nuell (Reg. No. 36,623) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to the provisions of 37 C.F.R. §§ 1.17 and 1.136(a), Applicant respectfully petitions for a three (3) month extension of time for filing a response in connection with the present application. The required fee of \$950.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Terminal Disclaimer